

**Commonwealth of Kentucky**  
**Natural Resources and Environmental Protection Cabinet**  
**Department for Environmental Protection**  
**Division for Air Quality**  
**803 Schenkel Lane**  
**Frankfort, Kentucky 40601**  
**(502) 573-3382**

**AIR QUALITY PERMIT**

**Permittee Name:** Kentucky Utilities Company  
**Mailing Address:** One Quality Street, Lexington, Kentucky 40507

is authorized to operate an  
electric power generating plant located near Burgin, Kentucky

**Source Name:** E. W. Brown Generating Station  
**Mailing Address:** Curdsville Road, Burgin, Kentucky 40310  
**Source Location:** Curdsville Road, Burgin, Kentucky 40310

**Permit Type:** Federally-Enforceable  
**Review Type:** Title V  
**Permit Number:** V-97-046  
**Log Number:** E992

**Application**  
**Complete date:** February 14, 1997  
**KYEIS #:** 102-2740-0001  
**AFS Plant ID#:** 21-167-00001  
**FINDS Number:** KYD000622951  
**SIC Code:** 4911

**Region:** Bluegrass  
**County:** Mercer

**Issuance Date:**  
**Expiration Date:**

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**John E. Hornback, Director**  
**Division for Air Quality**

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## **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application which was determined to be administratively and technically complete on February 14, 1997, the Kentucky Division for Air Quality hereby authorizes the operation of the processing and air pollution control equipment described herein in accordance with the terms and conditions of this permit. This draft permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any emissions units without first having submitted a complete application to the permitting authority and received a permit for the planned activity from the permitting authority, except as provided in this permit or in Regulation 401 KAR 50:035, Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Division or any other federal, state, or local agency.

This permit contains provisions which require that specific test methods, monitoring or record keeping be used as a demonstration of compliance with permit limits. However, these provisions do not shield the source from violations of the applicable requirements being established and documented through other credible evidence, nor does it relieve the source from its obligation to comply with the underlying emission limits or other applicable requirements being monitored.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **Emissions Unit: 01 (01) - Unit 1 Indirect Heat Exchanger**

#### **Description:**

Constructed commenced: 1957

Pulverized coal-fired, dry bottom, wall-fired unit equipped with an electrostatic precipitator and low nitrogen oxides burners

Number two fuel oil used for startup and stabilization

Maximum continuous rating: 1260 MMBTU/hour

#### **Applicable Regulations:**

Regulation 401 KAR 61:015, Existing indirect heat exchangers applicable for an emissions unit greater than 250 MMBTU/hour and commenced before August 17, 1971, and  
Regulation 7, Prevention and Control of Emissions of Particulate Matter from Combustion of Fuel in Indirect Heat Exchangers

#### **1. Operating Limitations:**

None

#### **2. Emission Limitations:**

a) Pursuant to Regulation 401 KAR 61:015, Section 4 (4), and Regulation No. 7, particulate emissions shall not exceed 0.254 lb/MMBTU based on a three-hour average.

The permittee may assure continuing compliance with the particulate emission standard by operating the affected facility and associated control equipment such that the opacity does not exceed the upper limit of the indicator range developed from continuous opacity monitoring (COM) data collected during stack tests. If five (5) percent of COM data (based on a three-hour rolling average) recorded in a calendar quarter show excursions from the indicator range, the permittee shall contact the Division within thirty (30) days after the end of the quarter to schedule a stack test to demonstrate compliance with the particulate standard while operating at the conditions which resulted in the excursions. The Division may waive this testing requirement upon a demonstration that the cause of the excursions has been corrected, or may require stack tests at any time pursuant to Regulation 401 KAR 50:045, Performance tests.

b) Pursuant to Regulation 401 KAR 61:015, Section 4 (4), and Regulation No. 7, emissions shall not exceed forty (40) percent opacity based on a six-minute average except that a maximum of sixty (60) percent opacity is allowed for a period or aggregate of periods of not more than six minutes in any sixty (60) minutes during building a new fire, cleaning the firebox, or blowing soot.

c) Pursuant to Regulation 401 KAR 61:015, Section 5 (1), sulfur dioxide emissions shall not exceed 5.15 lbs/MMBTU based on a twenty-four-hour average.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **3. Testing Requirements:**

- a) The permittee shall conduct at least one performance test for particulate emissions within six months following the issuance of this permit. The upper limit of the indicator range shall be developed from the COM data collected during the stack tests.
- b) If no additional stack tests are performed pursuant to Condition 2. a) above, the permittee shall conduct one performance test for particulate emissions within the third year of the term of this permit to demonstrate compliance with the allowable standard.

### **4. Specific Monitoring Requirements:**

- a) Pursuant to Regulation 401 KAR 61:015, Section 6 (6), monitoring of operations for sulfur dioxide emissions shall be conducted by use of unbiased data collected by the 40 CFR Part 75 continuous emission monitoring (CEM) system. If the CEM is down then monitoring of operations for sulfur dioxide emissions shall be conducted daily by representative fuel sampling and analysis of fuel to be burned. Records of the continuous emission monitoring or fuel sampling and analysis and sulfur content shall be maintained for inspection upon request by any duly authorized representative of the Division for Air Quality. The continuous emission monitoring system for sulfur dioxide shall comply with Regulation 401 KAR 61:005, Section 3, particularly Performance Specification 2, and the summary shall consist of hourly averages.
- b) In accordance with Regulation 401 KAR 61:015, Section 6 (1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the Division.
- c) In accordance with Regulation 401 KAR 61:015, Section 6 (3), the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.
- d) Pursuant to Regulation 401 KAR 61:005, Section 3, a continuous monitoring system for opacity shall conform to requirements of this section which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement, and demonstrating compliance with Performance Specification 1 of 40 CFR 60, Appendix B as requested by the Division for Air Quality.
- e) Pursuant to Regulation 401 KAR 61:005, Section 3 (5), the Division may provide a temporary exemption from the monitoring and reporting requirements of Regulation 401 KAR 61:005, Section 3, for the continuous opacity monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **5. Specific Record Keeping Requirements:**

- a) Records shall be kept in accordance with Regulations 401 KAR 61:005, Section 3(16)(f) and 401 KAR 61:015, Section 6, with the exception that the records shall be maintained for a period of five (5) years.
- b) Records, including those documenting the results of each compliance test, shall be maintained for five (5) years pursuant to Regulation 401 KAR 50:035.
- c) The permittee shall maintain records of the COM data on a three-hour rolling average basis, the number of excursions above the indicator range, time and date of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator range in each calendar quarter.

### **6. Specific Reporting Requirements:**

- a) Pursuant to Regulation 401 KAR 61:005, Section 3 (16), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division:
  - 1. Owners or operators of facilities required to install continuous monitoring systems for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emissions standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.
  - 2. For opacity measurements, the summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity.
  - 3. For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard.
  - 4. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.
  - 5. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report.
- b) The permittee shall report the number of excursions above the indicator range, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator range in each calendar quarter.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **7. Specific Control Equipment Operating Conditions:**

- a) The electrostatic precipitator shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.
- b) Records regarding the maintenance of the electrostatic precipitator shall be maintained.
- c) See Section E for further requirements.

### **8. State-Origin Requirements:**

#### **a) Operating Limitations:**

NA

#### **b) Emission Limitations:**

NA

### **9. Alternate Operating Scenarios:**

NA

### **10. Compliance Schedule**

NA

### **11. Compliance Certification Requirements**

See Section F.

## **SECTION B -EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **Emissions Unit: 02 (03) - Unit 2 Indirect Heat Exchanger**

#### **Description:**

Construction commenced: 1963

Pulverized coal-fired, dry bottom, tangentially-fired, equipped with an electrostatic precipitator and low nitrogen oxides burners

Number two fuel oil used for startups and stabilization

Maximum continuous rating: 1733 MMBTU/hour

#### **Applicable Regulations:**

Regulation 401 KAR 61:015, Existing indirect heat exchangers applicable for an emissions unit greater than 250 MMBTU/hour and commenced before August 17, 1971

#### **1. Operating Limitations:**

None

#### **2. Emission Limitations:**

a) Pursuant to Regulation 401 KAR 61:015, Section 4 (1), particulate emissions shall not exceed 0.162 lb/MMBTU based on a three-hour average.

The permittee may assure continuing compliance with the particulate emission standard by operating the affected facility and associated control equipment such that the opacity does not exceed the upper limit of the indicator range developed from continuous opacity monitoring (COM) data collected during stack tests. If five (5) percent of COM data (based on a three-hour rolling average) recorded in a calendar quarter show excursions from the indicator range, the permittee shall contact the Division within thirty (30) days after the end of the quarter to schedule a stack test to demonstrate compliance with the particulate standard while operating at the conditions which resulted in the excursions. The Division may waive this testing requirement upon a demonstration that the cause of the excursions has been corrected, or may require stack tests at any time pursuant to Regulation 401 KAR 50:045, Performance tests.

b) Pursuant to Regulation 401 KAR 61:015, Section 4 (3), emissions shall not exceed forty (40) percent opacity based on a six-minute average except that a maximum of sixty (60) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes.

c) Pursuant to Regulation 401 KAR 61:015, Section 5 (1), sulfur dioxide emissions shall not exceed 5.15 lbs/MMBTU based on a twenty-four-hour average.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **3. Testing Requirements:**

- a) The permittee shall conduct at least one performance test for particulate emissions within six months following the issuance of this permit. The upper limit of the indicator range shall be developed from the COM data collected during the stack tests.
- b) If no additional stack tests are performed pursuant to Condition 2. a) above, the permittee shall conduct one performance test for particulate emissions within the third year of the term of this permit to demonstrate compliance with the allowable standard.

### **4. Specific Monitoring Requirements:**

- a) Pursuant to Regulation 401 KAR 61:015, Section 6 (6), monitoring of operations for sulfur dioxide emissions shall be conducted by use of unbiased data collected by the 40 CFR Part 75 continuous emission monitoring (CEM) system. If the CEM is down then monitoring of operations for sulfur dioxide emissions shall be conducted daily by representative fuel sampling and analysis of fuel to be burned. Records of the continuous emission monitoring or fuel sampling and analysis and sulfur content shall be maintained for inspection upon request by any duly authorized representative of the Division for Air Quality. The continuous emission monitoring system for sulfur dioxide shall comply with Regulation 401 KAR 61:005, Section 3, particularly Performance Specification 2, and the summary shall consist of hourly averages.
- b) In accordance with Regulation 401 KAR 61:015, Section 6 (1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the Division.
- c) In accordance with Regulation 401 KAR 61:015, Section 6 (3), the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.
- d) Pursuant to Regulation 401 KAR 61:005, Section 3, a continuous monitoring system for opacity shall conform to requirements of this section which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement, and demonstrating compliance with Performance Specification 1 of 40 CFR 60, Appendix B as requested by the Division for Air Quality.
- e) Pursuant to Regulation 401 KAR 61:005, Section 3 (5), the Division may provide a temporary exemption from the monitoring and reporting requirements of Regulation 401 KAR 61:005, Section 3, for the continuous opacity monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **5. Specific Record Keeping Requirements:**

- a) Records shall be kept in accordance with Regulations 401 KAR 61:005, Section 3(16)(f) and 401 KAR 61:015, Section 6, with the exception that the records shall be maintained for a period of five (5) years.
- b) Records, including those documenting the results of each compliance test, shall be maintained for five (5) years pursuant to Regulation 401 KAR 50:035.
- c) The permittee shall maintain records of the COM data on a three-hour rolling average basis, the number of excursions above the indicator range, time and date of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator range in each calendar quarter.

### **6. Specific Reporting Requirements:**

- a) Pursuant to Regulation 401 KAR 61:005, Section 3 (16), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division:
  - 1. Owners or operators of facilities required to install continuous monitoring systems for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emissions standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.
  - 2. For opacity measurements, the summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity.
  - 3. For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard.
  - 4. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.
  - 5. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

**6. Specific Reporting Requirements:**

b) The permittee shall report the number of excursions above the indicator range, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator range in each calendar quarter.

**7. Specific Control Equipment Operating Conditions:**

a) The electrostatic precipitator shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance of the electrostatic precipitator shall be maintained.

c) See Section E for further requirements.

**8. State-Origin Requirements:**

**a) Operating Limitations:**

NA

**b) Emission Limitations:**

NA

**9. Alternate Operating Scenarios:**

NA

**10. Compliance Schedule**

NA

**11. Compliance Certification Requirements**

See Section F.

## **SECTION B -EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **Emissions Unit: 03 (03) - Unit 3 Indirect Heat Exchanger**

#### **Description:**

Construction commenced: July 19, 1971

Pulverized coal-fired unit, dry bottom, tangentially-fired equipped with an electrostatic precipitator and low nitrogen oxides burners

Number two fuel oil used for startups and stabilization

Maximum continuous rating: 4128 MMBTU/hour

#### **Applicable Regulations:**

Regulation 401 KAR 61:015, Existing indirect heat exchangers applicable for an emissions unit greater than 250 MMBTU/Hour and commenced before August 17, 1971, and

Regulation 7, Prevention and Control of Emissions of Particulate Matter from Combustion of Fuel in Indirect Heat Exchangers

#### **1. Operating Limitations:**

None

#### **2. Emission Limitations:**

a) Pursuant to Regulation 401 KAR 61:015, Section 4 (4), and Regulation No. 7, particulate emissions shall not exceed 0.254 lb/MMBTU based on a three-hour average.

The permittee may assure continuing compliance with the particulate emission standard by operating the affected facility and associated control equipment such that the opacity does not exceed the upper limit of the indicator range developed from continuous opacity monitoring (COM) data collected during stack tests. If five (5) percent of COM data (based on a three-hour rolling average) recorded in a calendar quarter show excursions from the indicator range, the permittee shall contact the Division within thirty (30) days after the end of the quarter to schedule a stack test to demonstrate compliance with the particulate standard while operating at the conditions which resulted in the excursions. The Division may waive this testing requirement upon a demonstration that the cause of the excursions has been corrected, or may require stack tests at any time pursuant to Regulation 401 KAR 50:045, Performance tests.

b) Pursuant to Regulation 401 KAR 61:015, Section 4 (4), and Regulation No. 7, emissions shall not exceed forty (40) percent opacity based on a six-minute average except that a maximum of sixty (60) percent opacity is allowed for a period or aggregate of periods of not more than six minutes in any sixty (60) minutes during building a new fire, cleaning the firebox, or blowing soot.

c) Pursuant to Regulation 401 KAR 61:015, Section 5 (1), sulfur dioxide emissions shall not exceed 5.15 lbs/MMBTU based on a twenty-four-hour average.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **3. Testing Requirements:**

- a) The permittee shall conduct at least one performance test for particulate emissions within six months following the issuance of this permit. The upper limit of the indicator range shall be developed from the COM data collected during the stack tests.
- b) If no additional stack tests are performed pursuant to Condition 2. a) above, the permittee shall conduct one performance test for particulate emissions within the third year of the term of this permit to demonstrate compliance with the allowable standard.

### **4. Specific Monitoring Requirements:**

- a) Pursuant to Regulation 401 KAR 61:015, Section 6 (6), monitoring of operations for sulfur dioxide emissions shall be conducted by use of unbiased data collected by the 40 CFR Part 75 continuous emission monitoring (CEM) system. If the CEM is down then monitoring of operations for sulfur dioxide emissions shall be conducted daily by representative fuel sampling and analysis of fuel to be burned. Records of the continuous emission monitoring or fuel sampling and analysis and sulfur content shall be maintained for inspection upon request by any duly authorized representative of the Division for Air Quality. The continuous emission monitoring system for sulfur dioxide shall comply with Regulation 401 KAR 61:005, Section 3, particularly Performance Specification 2, and the summary shall consist of hourly averages.
- b) In accordance with Regulation 401 KAR 61:015, Section 6 (1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the Division.
- c) In accordance with Regulation 401 KAR 61:015, Section 6 (3), the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.
- d) Pursuant to Regulation 401 KAR 61:005, Section 3, a continuous monitoring system for opacity shall conform to requirements of this section which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement, and demonstrating compliance with Performance Specification 1 of 40 CFR 60, Appendix B as requested by the Division for Air Quality.
- e) Pursuant to Regulation 401 KAR 61:005, Section 3 (5), the Division may provide a temporary exemption from the monitoring and reporting requirements of Regulation 401 KAR 61:005, Section 3, for the continuous opacity monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **5. Specific Record Keeping Requirements:**

- a) Records shall be kept in accordance with Regulations 401 KAR 61:005, Section 3(16)(f) and 401 KAR 61:015, Section 6, with the exception that the records shall be maintained for a period of five (5) years.
- b) Records, including those documenting the results of each compliance test, shall be maintained for five (5) years pursuant to Regulation 401 KAR 50:035.
- c) The permittee shall maintain records of the COM data on a three-hour rolling average basis, the number of excursions above the indicator range, time and data of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator range in each calendar quarter.

### **6. Specific Reporting Requirements:**

- a) Pursuant to Regulation 401 KAR 61:005, Section 3 (16), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division:
  - 1. Owners or operators of facilities required to install continuous monitoring systems for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emissions standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.
  - 2. For opacity measurements, the summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity.
  - 3. For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard.
  - 4. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.
  - 5. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report.
- b) The permittee shall report the number of excursions above the indicator range, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator range in each calendar quarter.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **7. Specific Control Equipment Operating Conditions:**

- a) The electrostatic precipitator shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.
- b) Records regarding the maintenance of the electrostatic precipitator shall be maintained.
- c) See Section E for further requirements.

### **8. State-Origin Requirements:**

#### **a) Operating Limitations:**

NA

#### **b) Emission Limitations:**

NA

### **9. Alternate Operating Scenarios:**

NA

### **10. Compliance Schedule**

NA

### **11. Compliance Certification Requirements**

See Section F.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS****Emissions Unit: 07 (12, 14, 15) - Coal Handling Operations****Description:**

Construction commenced: 1957

**Equipment includes:**

West track hopper operations;  
Conveyors A, C, E, F, G, and H, and transfer points;  
Conveyors B and J, and transfer points;  
Stockpile

**Maximum Operating Rate (Tons/hour)**

820  
820, each  
820, each  
1640

**Applicable Regulations:**

Regulation 401 KAR 63:010, Fugitive emissions

**Applicable Requirements**

a) Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

1. application and maintenance of asphalt, application of water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;
2. installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling.

b) Pursuant to Regulation 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

**1. Operating Limitations:**

None

**2. Emission Limitations:**

None

**3. Testing Requirements:**

None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

**4. Specific Monitoring Requirements:**

See Section F.

**5. Specific Record Keeping Requirements:**

Records of the coal received and processed (tonnages) shall be maintained.

**6. Specific Reporting Requirements:**

See Section F.

**7. Specific Control Equipment Operating Conditions:**

a) The air pollution control equipment (including but not limited to enclosures for the west track hopper operations, conveyors A, C, E, F, G, H, and conveyors B and J, and transfer points; and including but not limited to compaction and wet suppression for stockpile operations) shall be used as necessary to maintain compliance with applicable requirements, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance and use of the air pollution control equipment (including but not limited to enclosures for the west track hopper operations, conveyors A, C, E, F, G, H, and conveyors B and J, and transfer points; and including but not limited to compaction and wet suppression for stockpile operations) shall be maintained.

c) See Section E for further requirements.

**8. State-Origin Requirements:**

**a) Operating Limitations:**

NA

**b) Emission Limitations:**

NA

**9. Alternate Operating Scenarios:**

NA

**10. Compliance Schedule**

NA

**11. Compliance Certification Requirements**

See Section F.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**Emissions Unit: 09 (12, 14) - Coal Handling Operations**

**Description:**

Construction commenced: October, 1993

Equipment includes: east track hopper operations, and conveyor A-1 and transfer points

Maximum Operating Rate: 820 tons/hour, each

**Applicable Regulations:**

Regulation 401 KAR 60:250, Standards of performance for coal preparation plants, incorporating by reference 40 CFR 60, Subpart Y for emissions units commenced after October 24, 1974

**1. Operating Limitations:**

None

**2. Emission Limitations:**

a) Pursuant to Regulation 401 KAR 60:250, 40 CFR 60.252, the owner or operator subject to the provisions of this regulation shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.

**3. Testing Requirements:**

a) Pursuant to Regulation 401 KAR 60:250, 40 CFR 60.254, EPA Reference Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity at least annually.

**4. Specific Monitoring Requirements:**

The permittee shall inspect the control equipment weekly and make necessary repairs to assure compliance.

**5. Specific Record Keeping Requirements:**

Records of the coal received and processed (tonnages) shall be maintained.

**6. Specific Reporting Requirements:**

See Section F.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **7. Specific Control Equipment Operating Conditions:**

a) The air pollution control equipment (including but not limited to enclosures) shall be used as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance and use of the air pollution control equipment (including but not limited to enclosures) shall be maintained.

c) See Section E for further requirements.

### **8. State-Origin Requirements:**

#### **a) Operating Limitations:**

NA

#### **b) Emission Limitations:**

NA

### **9. Alternate Operating Scenarios:**

NA

### **10. Compliance Schedule:**

NA

### **11. Compliance Certification Requirements:**

See Section F.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **Emissions Units: 13 (14) - Coal Handling Operations**

#### **Description:**

Construction commenced: 1957

Equipment includes:

Point 13 (14) - conveyor D - traveling tripper, and coal bunkers for Units 1 & 2, and transfer points

- conveyor K-1 - upper traveling tripper for Unit 3, Unit 3 coal bunker, and transfer points

- conveyor K - lower traveling tripper for Unit 3, Unit 3 coal bunker, and transfer points

Maximum Operating Rate: 820 tons/hour, each point

#### **Applicable Regulations:**

Regulation 401 KAR 61:020, Existing process operations, for emissions unit commenced before July 2, 1975

#### **1. Operating Limitations:**

None

#### **2. Emission Limitations:**

a) Pursuant to Regulation 401 KAR 61:020, Section 3(2), particulate matter emissions into the open air shall not exceed  $[55 (P)^{0.11} - 40]$  pounds per hour based on three-hour average where P is the operating rate in tons per hour.

b) Pursuant to Regulation 401 KAR 61:020, Section 3(1)(a), any continuous emission(s) into the open air shall not equal or exceed forty (40) percent opacity based on a six-minute average.

#### **3. Testing Requirements:**

EPA Reference Method 9 shall be used to determine opacity and shall be performed upon the Division's request, but not less frequently than annually.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **4. Specific Monitoring Requirements:**

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs.

b) The permittee shall monitor the operating rate and hours of operation on a daily basis.

### **5. Specific Record Keeping Requirements:**

Records of the daily coal processed/burned and hours of operation shall be maintained.

### **6. Specific Reporting Requirements:**

See Section F.

### **7. Specific Control Equipment Operating Conditions:**

a) The rotoclone and baghouse shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance of the rotoclone and baghouse shall be maintained.

c) See Section E for further requirements.

### **8. State-Origin Requirements:**

#### **a) Operating Limitations:**

NA

#### **b) Emission Limitations:**

NA

### **9. Alternate Operating Scenarios:**

NA

### **10. Compliance Schedule:**

NA

### **11. Compliance Certification Requirements:**

See Section F.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **Emissions Unit: 16 (13) - Coal Crushing and Processing**

#### **Description:**

Construction commenced: 1957

Equipment includes: four crushers and the crusher house

Maximum Operating Rate: 1640 tons/hour, total

#### **Applicable Regulations:**

Regulation 401 KAR 61:020, Existing process operations, for emissions unit commenced before July 2, 1975

#### **1. Operating Limitations:**

None

#### **2. Emission Limitations:**

a) Pursuant to Regulation 401 KAR 61:020, Section 3(2), particulate matter emissions into the open air shall not exceed  $[55 (P)^{0.11} - 40]$  pounds per hour based on three-hour average where P is the operating rate in tons per hour.

b) Pursuant to Regulation 401 KAR 61:020, Section 3(1)(a), any continuous emission(s) into the open air shall not equal or exceed forty (40) percent opacity based on a six-minute average.

#### **3. Testing Requirements:**

EPA Reference Method 9 shall be used to determine opacity and shall be performed upon the Division's request, but not less frequently than annually.

#### **4. Specific Monitoring Requirements:**

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs.

b) The permittee shall monitor the operating rate and hours of operation on a daily basis.

#### **5. Specific Record Keeping Requirements:**

Records of the daily coal processed/burned and hours of operation shall be maintained.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

**6. Specific Reporting Requirements:**

See Section F.

**7. Specific Control Equipment Operating Conditions:**

a) The dust collector shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance of the dust collector shall be maintained.

c) See Section E for further requirements.

**8. State-Origin Requirements:**

**a) Operating Limitations:**

NA

**b) Emission Limitations:**

NA

**9. Alternate Operating Scenarios:**

NA

**10. Compliance Schedule:**

NA

**11. Compliance Certification Requirements:**

See Section F.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **Emissions Unit: 21 (16) - Dry Fly Ash Handling**

#### **Description:**

Construction commenced: 1982

Equipment includes: Dry flyash collection system, with a flyash silo, and pulse jet fabric filter dust collector

Maximum Operating Rate: 79.5 Tons/hour

#### **APPLICABLE REGULATIONS:**

Regulation 401 KAR 59:010, New process operations, applicable for emissions units commenced on or after July 2, 1975

#### **1. Operating Limitations:**

None

#### **2. Emission Limitations:**

a) Pursuant to Regulation 401 KAR 59:010, Section 3 (2), particulate matter emissions into the open air shall not exceed  $[17.31(P)^{0.16}]$  pounds per hour based on a three-hour average where P is the operating rate in tons per hour.

b) Pursuant to Regulation 401 KAR 59:010, Section 3(1)(a), any continuous emission(s) into the open air shall not equal or exceed twenty (20) percent opacity based on a six-minute average.

#### **3. Testing Requirements:**

EPA Reference Method 9 shall be used to determine opacity and shall be performed upon the Division's request but not less frequently than annually.

#### **4. Specific Monitoring Requirements:**

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs.

b) The permittee shall monitor the operating rate and hours of operation on a daily basis.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

**5. Specific Record Keeping Requirements:**

Records of the daily ash processed and hours of operation shall be maintained.

**6. Specific Reporting Requirements:**

See Section F.

**7. Specific Control Equipment Operating Conditions:**

a) The baghouse shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance of the baghouse shall be maintained.

c) See Section E for further requirements.

**8. State-Origin Requirements:**

**a) Operating Limitations:**

NA

**b) Emission Limitations:**

NA

**9. Alternate Operating Scenarios:**

NA

**10. Compliance Schedule**

NA

**11. Compliance Certification Requirements**

See Section F.

## **SECTION B -EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

**Emissions Unit: 23 (08) - Oil/Natural Gas-Fired Turbine (Unit 8)**

### **Description:**

Construction commenced: on or before March 1, 1996

Number two fuel oil/natural gas-fired turbine for electricity generation equipped with water injection for nitrogen oxides emissions control

### **Applicable Regulations:**

Regulation 401 KAR 60:330, Standards of performance for stationary gas turbines, incorporating by reference 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, for emissions unit with a heat input at peak load equal to or greater than 10 MMBTU/hour for which construction commenced after October 3, 1977, and

Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality

### **1. Operating Limitations:**

1. The rated capacity at ISO standard conditions, shall not exceed 1368 MMBTU/hour in accordance with Regulation 401 KAR 51:017. The rated capacity shall be calculated from the fuel usage rate at ISO standard conditions, and corresponding fuel heating value characteristic of the fuel to be combusted. Monthly records of the rated capacity shall be maintained.

2. The maximum annual hours of operation for the turbine shall not exceed 2500 hours, in accordance with Regulation 401 KAR 51:017. The permittee shall maintain a monthly log of all hours of operation of the turbine, for any consecutive twelve (12) month period.

### **2. Emission Limitations:**

a) 1. Pursuant to Regulations 401 KAR 60:330 incorporating 40 CFR 60.332, and 401 KAR 51:017, nitrogen oxide emissions from the turbine shall not exceed 65 ppm by volume at 15 percent oxygen and on a dry basis when burning number two fuel oil.

2. Pursuant to Regulations 401 KAR 60:330 incorporating 40 CFR 60.332, and 401 KAR 51:017, nitrogen oxide emissions from the turbine shall not exceed 42 ppm by volume at 15 percent oxygen and on a dry basis when burning natural gas.

The permittee may use Continuous Monitoring data of the water to fuel being fired in the turbine as an indicator of continuous compliance with the nitrogen oxides emission standard. Compliance may be assured when the continuous monitoring system data, based on a one-hour average, for the water to fuel ratio being fired is greater than the ratio determined to demonstrate compliance during the performance tests for the turbine. The accuracy required by the continuous monitoring system is plus or minus five (5) percent.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

### 2. Emission Limitations continued:

- b) Pursuant to Regulations 401 KAR 60:330 incorporating 40 CFR 60.333, and 401 KAR 51:017 the fuel sulfur content and corresponding sulfur dioxide emissions shall not exceed the standards set forth below:

<u>Number of Turbines Operational</u>	<u>Maximum Allowable Percent by Weight Sulfur in the Fuel</u>	<u>Maximum Allowable Sulfur Dioxide Emissions</u>
6 or less	0.30	444 pounds per hour per turbine
7	0.26	444 pounds per hour per turbine
8	0.23	402 pounds per hour per turbine

The permittee may assure compliance with the corresponding sulfur dioxide allowable emission rate by calculation using representative fuel analysis, and hourly fuel consumption data from the continuous monitoring system. Formula: Pounds (lbs) per hour sulfur dioxide when combusting number two fuel oil = gallons per hour fuel oil x density in pounds per gallon (about 7.05 lb/gallon) x percent sulfur/100 x 2.00 lbs sulfur dioxide per lb sulfur. (emission factor from Westinghouse Vendor); or lbs per hour sulfur dioxide when combusting natural gas = million cubic feet (MMCF) natural gas per hour x 0.6 lb/MMCF (AP-42).

- c) Pursuant to Regulation 401 KAR 51:017, the carbon monoxide emissions shall not exceed 75 pounds per hour and 93.8 tons per year. Formula: lbs per hour carbon monoxide emissions when combusting number two fuel oil = gallons per hour fuel oil x 0.00715 lbs/gallon (emission factor from Westinghouse Vendor); or lbs per hour carbon monoxide emissions when combusting natural gas = MMCF natural gas per hour x 115 lb/MMCF (AP-42). (Tons per year = lbs per hour x hours of operation per year divided by 2000 lbs/ton)
- d) Pursuant to Regulation 401 KAR 51:017, particulate emissions shall not exceed 67 pounds per hour and 83.8 tons per year. Formula: lbs per hour particulate emissions when combusting number two fuel oil = gallons per hour fuel x 0.00638 lbs/gallon (emission factor from Westinghouse Vendor); or lbs per hour particulate emissions when combusting natural gas = MMCF natural gas per hour x 20.3 lbs/MMCF (AP-42). (Tons per year = lbs per hour x hours of operation per year divided by 2000 lbs/ton)
- e) Pursuant to Regulation 401 KAR 51:017, volatile organic compound emissions shall not exceed 20.4 pounds per hour and 25.5 tons per year. Formula: lbs per hour volatile organic compound emissions when combusting number two fuel oil = gallons per hour fuel x 0.00194 lbs/gallon (emission factor from Westinghouse Vendor); or lbs per hour volatile organic compound emissions when combusting natural gas = MMCF natural gas per hour x 12.6 lbs/MMCF (KYEIS factor; no data given in 10/96 AP-42). (Tons per year = lbs per hour x hours of operation per year divided by 2000 lbs/ton)

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS****2. Emission Limitations continued:**

- f) Pursuant to Regulation 401 KAR 51:017, beryllium emissions shall not exceed 3.37E-03 pound per hour and 4.21E-03 ton per year. Formula: lbs per hour beryllium emissions when combusting number two fuel oil = gallons per hour fuel x 3.22E-07 lbs/gallon (emission factor from EPA document on Toxic Air Pollutants number EPA450/2-88-006a); No emission factor available for beryllium when combusting natural gas - beryllium emissions when combusting natural gas are not expected to be significant.

**3. Testing Requirements:**

- a) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.335 (a), the owner or operator shall compute the nitrogen oxides emissions using the analytical methods and procedures that are accurate to within five (5) percent and approved by the Division to determine the nitrogen content of the fuel being fired.
- b) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.335 (b), in conducting performance tests required by 40 CFR 60.8, the owner or operator shall use as test methods and procedures the test methods in Appendix A of Part 60 or other methods or procedures as specified in 40 CFR 60.335, except as provided for in 40 CFR 60.8(b).
- c) The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in accordance with 40 CFR 60.335(c)(1), (2), and (3) which includes use of Method 20 to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. At least once during the permit term, the owner or operator shall conduct at least one performance test for nitrogen oxides.
- d) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.335(d), the owner or operator shall determine compliance with the sulfur content standard as follows: ASTM D 2880-71 shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 shall be used for the sulfur content of gaseous fuels. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Therefore, dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Division.
- e) To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in 40 CFR 60.335(a) and (d) to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.
- f) The permittee shall conduct at least one performance test for nitrogen oxides within the term of this permit. Also, see General Condition G(a)19.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **4. Specific Monitoring Requirements:**

- a) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.334(a), and/or pursuant to 40 CFR Part 75, the owner or operator using water injection to control nitrogen oxide emissions shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within plus or minus five (5) percent and shall be approved by the Division.
- b) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.334(b), and/or pursuant to 40 CFR Part 75, the owner or operator of any stationary turbine shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as specified in 40 CFR 60.334(b)(1) and (2).
- c) Pursuant to 40 CFR 60.13(b), the continuous monitoring system(s) and monitoring devices shall be installed and operational prior to conducting the initial performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device(s).
- d) Pursuant to 40 CFR 60.13(c), the owner or operator of an emissions unit shall conduct a performance evaluation of the continuous monitoring system during any performance test for nitrogen oxides or sulfur dioxide.
- e) Pursuant to 40 CFR 60.13(d)(1), the owner(s) and operator(s) of all continuous monitoring systems shall perform appropriate calibration checks and zero and span adjustments in accordance with a written procedure at least once daily, in accordance with requirements specified in 40 CFR 60.13(d)(1).
- f) Pursuant to 40 CFR 60.13(e), except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under e) , all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements which involves one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen (15) minute period.
- g) Pursuant to 40 CFR 60.13(f), all continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the emissions unit are obtained.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS****4. Specific Monitoring Requirements:**

h) Pursuant to 40 CFR 60.13(h), for the continuous monitoring systems the owner(s) or operator(s) shall reduce all data to one-hour averages. The one-hour averages shall be computed from four or more data points equally spaced over each one-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent oxygen). All excess emissions shall be converted into units of the applicable standard using the applicable conversion procedures specified in Subpart GG. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used to specify the applicable emission standard.

**5. Specific Record Keeping Requirements:**

a) Pursuant to Regulation 401 KAR 59:005, Section 3, the owner or operator of the gas turbine shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by Regulation 401 KAR 59:005 recorded in a permanent form suitable for inspection.

b) Records, including those documenting the results of each compliance test and all other records and reports required by this permit, shall be maintained for five (5) years pursuant to Regulation 401 KAR 50:035.

c) Pursuant to Regulation 401 KAR 59:005, Section 3, the owner or operator of the unit shall maintain the records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the emissions unit, any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative.

d) Records of the weekly natural gas (million standard cubic feet) and/or number two fuel oil (gallons) combusted shall be maintained.

e) Records regarding the maintenance and operation/use of the water injection control measure for nitrogen oxides emissions shall be maintained.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS****6. Specific Reporting Requirements:**

a) Pursuant to Regulation 401 KAR 59:005, Section 3, minimum data requirements which follow shall be maintained and furnished in the format specified by the Division. Owners or operators of facilities required to install continuous monitoring systems shall submit for every calendar quarter a written report of excess emissions (as defined in applicable sections) to the Division. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information:

- 1) The magnitude of the excess emissions computed in accordance with the Regulation 401 KAR 59:005, Section 4(8), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
- 2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the emissions unit. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.
- 3) The date and time identifying each period during which continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- 4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

b) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.334 (c), for the reports regarding nitrogen oxides excess emissions, periods of excess emissions are defined as follows:

- 1) Nitrogen oxides: any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with 40 CFR 60.332 by the performance test required in 40 CFR 60.8 or,
- 2) any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required in 40 CFR 60.8.

c) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.334(c), each report of nitrogen oxides excess emissions shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

**6. Specific Reporting Requirements continued:**

d) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.334(c), excess emissions of sulfur dioxide are defined as any daily period during which the sulfur content of the fuel being fired in the gas turbine(s) exceeds the limitations set forth in Subsection 2, Emission Limitations.

**7. Specific Control Equipment Operating Conditions:**

a) The water injection control measure for nitrogen oxides emissions shall be used/operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) See Section E for further requirements.

**8. State-Origin Requirements:**

**a) Operating Limitations:**

NA

**b) Emission Limitations:**

NA

**9. Alternate Operating Scenarios:**

NA

**10. Compliance Schedule**

NA

**11. Compliance Certification Requirements**

See Section F.

## **SECTION B -EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

**Emissions Unit: 24 (09) - Oil/Natural Gas-Fired Turbine (Unit 9)**

### **Description:**

Construction commenced: on or before November 28, 1995

Number two fuel oil/natural gas-fired turbine for electricity generation equipped with water injection for nitrogen oxides emissions control

### **Applicable Regulations:**

Regulation 401 KAR 60:330, Standards of performance for stationary gas turbines, incorporating by reference 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, for emissions unit with a heat input at peak load equal to or greater than 10 MMBTU/hour for which construction commenced after October 3, 1977, and

Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality

### **1. Operating Limitations:**

1. The rated capacity at ISO standard conditions, shall not exceed 1368 MMBTU/hour in accordance with Regulation 401 KAR 51:017. The rated capacity shall be calculated from the fuel usage rate at ISO standard conditions, and corresponding fuel heating value characteristic of the fuel to be combusted. Monthly records of the rated capacity shall be maintained.

2. The maximum annual hours of operation for the turbine shall not exceed 2500 hours, in accordance with Regulation 401 KAR 51:017. The permittee shall maintain a monthly log of all hours of operation of the turbine, for any consecutive twelve (12) month period.

### **2. Emission Limitations:**

a) 1. Pursuant to Regulations 401 KAR 60:330 incorporating 40 CFR 60.332, and 401 KAR 51:017, nitrogen oxide emissions from the turbine shall not exceed 65 ppm by volume at 15 percent oxygen and on a dry basis when burning number two fuel oil.

2. Pursuant to Regulations 401 KAR 60:330 incorporating 40 CFR 60.332, and 401 KAR 51:017, nitrogen oxide emissions from the turbine shall not exceed 42 ppm by volume at 15 percent oxygen and on a dry basis when burning natural gas.

The permittee may use Continuous Monitoring data of the water to fuel being fired in the turbine as an indicator of continuous compliance with the nitrogen oxides emission standard. Compliance may be assured when the continuous monitoring system data, based on a one-hour average, for the water to fuel ratio being fired is greater than the ratio determined to demonstrate compliance during the performance tests for the turbine. The accuracy required by the continuous monitoring system is plus or minus five (5) percent.

## SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

### 2. Emission Limitations continued:

- b) Pursuant to Regulations 401 KAR 60:330 incorporating 40 CFR 60.333, and 401 KAR 51:017 the fuel sulfur content and corresponding sulfur dioxide emissions shall not exceed the standards set forth below:

<u>Number of Turbines Operational</u>	<u>Maximum Allowable Percent by Weight Sulfur in the Fuel</u>	<u>Maximum Allowable Sulfur Dioxide Emissions</u>
6 or less	0.30	444 pounds per hour per turbine
7	0.26	444 pounds per hour per turbine
8	0.23	402 pounds per hour per turbine

The permittee may assure compliance with the corresponding sulfur dioxide allowable emission rate by calculation using representative fuel analysis, and hourly fuel consumption data from the continuous monitoring system. Formula: Pounds (lbs) per hour sulfur dioxide when combusting number two fuel oil = gallons per hour fuel oil x density in pounds per gallon (about 7.05 lb/gallon) x percent sulfur/100 x 2.00 lbs sulfur dioxide per lb sulfur. (emission factor from Westinghouse Vendor); or lbs per hour sulfur dioxide when combusting natural gas = million cubic feet (MMCF) natural gas per hour x 0.6 lb/MMCF (AP-42).

- c) Pursuant to Regulation 401 KAR 51:017, the carbon monoxide emissions shall not exceed 75 pounds per hour and 93.8 tons per year. Formula: lbs per hour carbon monoxide emissions when combusting number two fuel oil = gallons per hour fuel oil x 0.00715 lbs/gallon (emission factor from Westinghouse Vendor); or lbs per hour carbon monoxide emissions when combusting natural gas = MMCF natural gas per hour x 115 lb/MMCF (AP-42). (Tons per year = lbs per hour x hours of operation per year divided by 2000 lbs/ton)
- d) Pursuant to Regulation 401 KAR 51:017, particulate emissions shall not exceed 67 pounds per hour and 83.8 tons per year. Formula: lbs per hour particulate emissions when combusting number two fuel oil = gallons per hour fuel x 0.00638 lbs/gallon (emission factor from Westinghouse Vendor); or lbs per hour particulate emissions when combusting natural gas = MMCF natural gas per hour x 20.3 lbs/MMCF (AP-42). (Tons per year = lbs per hour x hours of operation per year divided by 2000 lbs/ton)
- e) Pursuant to Regulation 401 KAR 51:017, volatile organic compound emissions shall not exceed 20.4 pounds per hour and 25.5 tons per year. Formula: lbs per hour volatile organic compound emissions when combusting number two fuel oil = gallons per hour fuel x 0.00194 lbs/gallon (emission factor from Westinghouse Vendor); or lbs per hour volatile organic compound emissions when combusting natural gas = MMCF natural gas per hour x 12.6 lbs/MMCF (KYEIS factor; no data given in 10/96 AP-42). (Tons per year = lbs per hour x hours of operation per year divided by 2000 lbs/ton)

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS****2. Emission Limitations continued:**

- f) Pursuant to Regulation 401 KAR 51:017, beryllium emissions shall not exceed 3.37E-03 pound per hour and 4.21E-03 ton per year. Formula: lbs per hour beryllium emissions when combusting number two fuel oil = gallons per hour fuel x 3.22E-07 lbs/gallon (emission factor from EPA document on Toxic Air Pollutants number EPA450/2-88-006a); No emission factor available for beryllium when combusting natural gas - beryllium emissions when combusting natural gas are not expected to be significant.

**3. Testing Requirements:**

- a) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.335 (a), the owner or operator shall compute the nitrogen oxides emissions using the analytical methods and procedures that are accurate to within five (5) percent and approved by the Division to determine the nitrogen content of the fuel being fired.
- b) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.335 (b), in conducting performance tests required by 40 CFR 60.8, the owner or operator shall use as test methods and procedures the test methods in Appendix A of Part 60 or other methods or procedures as specified in 40 CFR 60.335, except as provided for in 40 CFR 60.8(b).
- c) The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in accordance with 40 CFR 60.335(c)(1), (2), and (3) which includes use of Method 20 to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. At least once during the permit term, the owner or operator shall conduct at least one performance test for nitrogen oxides.
- d) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.335(d), the owner or operator shall determine compliance with the sulfur content standard as follows: ASTM D 2880-71 shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-80, D 3031-81, D 4084-82, or D 3246-81 shall be used for the sulfur content of gaseous fuels. The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Therefore, dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Division.
- e) To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in 40 CFR 60.335(a) and (d) to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.
- f) The permittee shall conduct at least one performance test for nitrogen oxides within the term of this permit. Also, see General Condition G(a)19.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS****4. Specific Monitoring Requirements:**

- a) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.334(a), and/or pursuant to 40 CFR Part 75, the owner or operator using water injection to control nitrogen oxide emissions shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within plus or minus five (5) percent and shall be approved by the Division.
- b) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.334(b), and/or pursuant to 40 CFR Part 75, the owner or operator of any stationary turbine shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as specified in 40 CFR 60.334(b)(1) and (2).
- c) Pursuant to 40 CFR 60.13(b), the continuous monitoring system(s) and monitoring devices shall be installed and operational prior to conducting the initial performance tests. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device(s).
- d) Pursuant to 40 CFR 60.13(c), the owner or operator of an emissions unit shall conduct a performance evaluation of the continuous monitoring system during any performance test for nitrogen oxides or sulfur dioxide.
- e) Pursuant to 40 CFR 60.13(d)(1), the owner(s) and operator(s) of all continuous monitoring systems shall perform appropriate calibration checks and zero and span adjustments in accordance with a written procedure at least once daily, in accordance with requirements specified in 40 CFR 60.13(d)(1).
- f) Pursuant to 40 CFR 60.13(e), except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under e) , all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements which involves one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen (15) minute period.
- g) Pursuant to 40 CFR 60.13(f), all continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the emissions unit are obtained.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS****4. Specific Monitoring Requirements:**

h) Pursuant to 40 CFR 60.13(h), for the continuous monitoring systems the owner(s) or operator(s) shall reduce all data to one-hour averages. The one-hour averages shall be computed from four or more data points equally spaced over each one-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent oxygen). All excess emissions shall be converted into units of the applicable standard using the applicable conversion procedures specified in Subpart GG. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used to specify the applicable emission standard.

**5. Specific Record Keeping Requirements:**

a) Pursuant to Regulation 401 KAR 59:005, Section 3, the owner or operator of the gas turbine shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by Regulation 401 KAR 59:005 recorded in a permanent form suitable for inspection.

b) Records, including those documenting the results of each compliance test and all other records and reports required by this permit, shall be maintained for five (5) years pursuant to Regulation 401 KAR 50:035.

c) Pursuant to Regulation 401 KAR 59:005, Section 3, the owner or operator of the unit shall maintain the records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the emissions unit, any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative.

d) Records of the weekly natural gas (million standard cubic feet) and/or number two fuel oil (gallons) combusted shall be maintained.

e) Records regarding the maintenance and operation/use of the water injection control measure for nitrogen oxides emissions shall be maintained.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **6. Specific Reporting Requirements:**

a) Pursuant to Regulation 401 KAR 59:005, Section 3, minimum data requirements which follow shall be maintained and furnished in the format specified by the Division. Owners or operators of facilities required to install continuous monitoring systems shall submit for every calendar quarter a written report of excess emissions (as defined in applicable sections) to the Division. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information:

- 1) The magnitude of the excess emissions computed in accordance with the Regulation 401 KAR 59:005, Section 4(8), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.
- 2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the emissions unit. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.
- 3) The date and time identifying each period during which continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- 4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

b) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.334 (c), for the reports regarding nitrogen oxides excess emissions, periods of excess emissions are defined as follows:

- 1) Nitrogen oxides: any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with 40 CFR 60.332 by the performance test required in 40 CFR 60.8 or,
- 2) any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required in 40 CFR 60.8.

c) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.334(c), each report of nitrogen oxides excess emissions shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **6. Specific Reporting Requirements continued:**

d) Pursuant to Regulation 401 KAR 60:330, incorporating 40 CFR 60.334(c), excess emissions of sulfur dioxide are defined as any daily period during which the sulfur content of the fuel being fired in the gas turbine(s) exceeds the limitations set forth in Subsection 2, Emission Limitations.

### **7. Specific Control Equipment Operating Conditions:**

a) The water injection control measure for nitrogen oxides emissions shall be used/operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) See Section E for further requirements.

### **8. State-Origin Requirements:**

#### **a) Operating Limitations:**

NA

#### **b) Emission Limitations:**

NA

### **9. Alternate Operating Scenarios:**

NA

### **10. Compliance Schedule**

NA

### **11. Compliance Certification Requirements**

See Section F.

## SECTION C - INSIGNIFICANT ACTIVITIES

**The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4).**

1. The following number two fuel oil storage tanks to which recordkeeping and reporting requirements of Regulation 401 KAR 59:485, incorporating 40 CFR 60 Subpart Kb apply: two 1.1 million gallon tanks.
2. Various number two fuel oil tanks installed in 1973 or earlier.
3. The following lubricating oil storage tanks: two 9000 gallon tanks, one 6500 gallon tank, two 3600 gallon tanks, four 3500 gallon tanks, and two 3000 gallon tanks.
4. Cooling towers to which Regulation 401 KAR 63:010 applies.
5. SO<sub>3</sub>, sulfur trioxide, injection system to which Regulation 401 KAR 63:010 or Regulation 401 KAR 61:020 applies.
6. Infrequent evaporation of boiler chemical cleaning solutions.
7. Burning de minimus quantities of used oil for energy recovery.
8. Paved and unpaved roadways and parking areas within facility gate to which Regulation 401 KAR 63:010 applies.

## **SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS**

1. Particulate, sulfur dioxide, nitrogen oxides, carbon monoxide, volatile organic compounds, beryllium, and visible (opacity) emissions, as measured by methods referenced in Regulation 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.
2. Compliance with annual emissions and operating limitations imposed pursuant to Regulation 401 KAR 50:035, Section 7(1)(a), and contained in this permit, shall be based on emissions and operating rates for any twelve (12) consecutive months.

## **SECTION E - CONTROL EQUIPMENT CONDITIONS**

1. Pursuant to Regulation 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any emissions unit including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

## **SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS**

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a) Date, place as defined in this permit, and time of sampling or measurements;
  - b) Analyses performance dates;
  - c) Company or entity that performed analyses;
  - d) Analytical techniques or methods used;
  - e) Analyses results; and
  - f) Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality.
3. The permittee shall allow the Division or authorized representatives to perform the following:
  - a) Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
  - b) Have access to and copy, at reasonable times, any records required by the permit:
    - i) During normal office hours, and
    - ii) During periods of emergency when prompt access to records is essential to proper assessment by the Division;
  - c) Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
    - i) During all hours of operation at the source,
    - ii) For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
    - iii) During an emergency; and
  - d) Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
    - i) During all hours of operation at the source,
    - ii) For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
    - iii) During an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

**SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

5. Reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Division's Frankfort Regional Office no later than the six-month anniversary date of this permit and every six months thereafter during the life of this permit, unless otherwise stated in this permit. Data from the continuous emission and opacity monitors shall be reported to the Director in accordance with the requirements of Regulation 401 KAR 59:005, General Provisions, Section 3 and/or Regulation 401 KAR 61:005, General Provisions, Section 3. All reports shall be certified by a responsible official pursuant to Section 6 (1) of Regulation 401 KAR 50:035, Permits. All deviations from permit requirements shall be clearly identified in the reports.
6. In accordance with Regulation 401 KAR 50:055, Section 1, the owner or operator shall notify the Division for Air Quality's Frankfort Regional Office by telephone or fax as promptly as possible of any deviation from permit requirements, including those due to malfunctions, unplanned shutdowns, ensuing startups, or upset conditions, and report excess emissions. For this source, promptly will be defined as three (3) hours from the occurrence of the deviation. Pursuant to Regulation 401 KAR 50:035, Section 7(1)(e), the permittee shall submit a written notice describing the probable cause of the deviations and corrective actions or preventive measures taken within two (2) working days from the occurrence of the deviation when the technology-based emission limitation(s) are exceeded.
7. The permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance anniversary date to the Division for Air Quality's Frankfort Regional Office and the U.S. EPA in accordance with the following requirements:
  - a) Identification of each term or condition of the permit that is the basis of the certification;
  - b) The compliance status regarding each term or condition of the permit;
  - c) Whether compliance was continuous or intermittent;
  - d) The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to Regulation 401 KAR 50:035, Section 7(1) (c), (d), and (e);
  - e) Other facts the Division may require to determine the compliance status of the source; and
  - f) The certification shall be postmarked by the thirtieth (30th) day following the applicable permit issuance anniversary date.
8. In accordance with Regulation 401 KAR 50:035, Section 23, the permittee shall report all information necessary to determine its subject emissions.
9. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance tests shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.

## SECTION G - GENERAL CONDITIONS

### a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be (a) violation(s) of State Regulation 401 KAR 50:035, Permits, Section 7(3)(d) and for federally enforceable permits is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) and are grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - i) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 50:035, Section 12(2)(c);
  - ii) If any additional applicable requirements of the Acid Rain Program become applicable to the source;
  - iii) The Division or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
  - iv) The Division or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.
4. The permittee shall furnish to the Division, in writing, information that the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit.

**SECTION G - GENERAL CONDITIONS (CONTINUED)**

5. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit.
6. Pursuant to Regulation 401 KAR 50:035, Section 7(3)(e), the permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance.
7. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.
8. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within ninety (90) days after the date of notice as specified in Regulation 401 KAR 50:038, Section 3(6).
9. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance.
10. This permit shall not convey property rights or exclusive privileges.
11. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
12. Nothing in this permit shall alter or affect the authority of the U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.
13. Nothing in this permit shall alter or affect the authority of the U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.
14. Permit Shield: Except as provided in State Regulation 401 KAR 50:035, Permits, compliance by the emissions units listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of the issuance of this permit.
15. The permittee may conduct test burns of materials other than those listed in the permit without a construction permit or a reopening of this permit provided that:
  - a) Notification is provided to the Division at least thirty (30) days prior to initiation of the test burning of the material;
  - b) The source complies with all applicable regulations and emission limitations;
  - c) The permittee agrees to perform such additional testing as may be required by the Division.

## **SECTION G - GENERAL CONDITIONS (CONTINUED)**

16. The permanent burning of any material (addressed in above condition) shall be allowed upon completion of testing provided that:
  - a) The Division determines that a permit is not required. Such determination shall be made within sixty (60) days of the application receipt along with the test results;
  - b) The permittee keeps records of the date and time of burn;
  - c) The permittee keeps records of analysis and feed rate of material;
  - d) Burning any of those materials shall not be subject to any new applicable regulation and the source shall comply with all applicable regulation and emission limitations.
17. Fugitive emissions shall be controlled in accordance with Regulation 401 KAR 63:010.
18. Emission limitations listed in this permit shall apply at all times except during periods of startup, shutdown, or malfunctions in accordance with Regulation 401 KAR 50:055, as long as the permittee follows the requirements of Regulation 401 KAR 50:055.
19. Pursuant to Section VII 2.2.(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to Regulation 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

### **b) Permit Expiration and Reapplication Requirements**

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete application submittal, all the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division.

### **c) Permit Revisions**

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.

## **SECTION G - GENERAL CONDITIONS (CONTINUED)**

### **d) Acid Rain Program Requirements**

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
2. The permittee shall comply with all requirements and conditions of the Title IV, Acid Rain Permit(s) issued for this source.

### **e) Emergency Provisions**

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
  - i) An emergency occurred and the permittee can identify the cause of the emergency;
  - ii) The permitted facility was at the time being properly operated;
  - iii) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
  - iv) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of Regulation 401 KAR 50:035, Permits, Section 7(1)(e)2, and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (e)1., above, are in addition to any emergency or upset provision(s) contained in an applicable requirement.
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof.

## **SECTION G - GENERAL CONDITIONS (CONTINUED)**

### **f) Risk Management Provisions under CAA 112(r)**

1. The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall:
  - a. Submit a Risk Management Plan to the U.S. EPA, Region IV with a copy to this Division and comply with the Risk Management Program by June 21, 1999 or a later date specified by the U.S. EPA.
  - b. Submit additional relevant information if requested by the Division or the U.S. EPA.

### **g) Ozone Depleting Substances**

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provide for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards of recycling and recovery equipments contained in 40 CFR 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined in 40 CFR 82.152) shall comply with the record keeping requirements pursuant to 40 CFR 82.166.
  - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

## **SECTION H - ALTERNATE OPERATING SCENARIOS**

None

## **SECTION I - COMPLIANCE SCHEDULE**

None

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